

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-14. (Cancelled)

15. (Currently Amended) A method for fabricating a nonvolatile ferroelectric memory device, the method comprising:

defining a first active region and a second active region on a semiconductor substrate;

forming a first split wordline across the first active region and a second split wordline across the second active region;

forming first and second source and drain regions in the first and second active regions, respectively, wherein the source and drain regions are at opposite sides of the first and second split wordlines;

forming an insulating layer on an entire surface including first and second split word lines and the first and second active regions;

forming contact holes by selectively removing the insulating layer, wherein the contact holes includes first contact holes exposing the first and second drain regions and second contact holes exposing the first and second source regions;



forming first plugs coupled to the first and second drain regions through ~~[[a]]~~ the first contact ~~hole~~ holes;

forming second plugs coupled to the first and second source regions through the second contact ~~hole~~ holes;

respectively forming first electrodes of first and second ferroelectric capacitors over the second and first split wordlines;

forming ferroelectric layers on the first electrodes;

respectively forming second electrodes of the first and second ferroelectric capacitors on surfaces of the ~~first and second~~ ferroelectric layers;

forming a conductive material layer on an entire surface including the second electrodes of the first and second ferroelectric capacitors;

respectively forming ~~first and second~~ conductive layers by selectively removing the conductive material layer, wherein that the conductive layers couple the second plugs with the second electrodes of the first and second ferroelectric capacitors; and

forming first and second bitlines across the first and second split wordlines, wherein the first and second bitlines are coupled to the first and second drain regions through the first plugs.

16. (Currently Amended) The method of claim 15, wherein the first active region and the second active region are spaced apart from each other and asymmetrically formed each



extending in a first direction, ~~and wherein the first electrodes have a folder shape to the first and second wordlines.~~

17. (Currently Amended) The method of claim 15, wherein the first electrode of the first and second ferroelectric capacitors are formed on the insulating layer, wherein the first electrode of the first ferroelectric capacitor is formed over second the split wordline ~~and an insulating layer is formed therebetween~~, and wherein the first electrode of the second ferroelectric capacitor is formed over the first split wordline ~~and an insulating layer is formed therebetween~~.

18. (Currently Amended) The method of claim 15, wherein forming the second electrodes of the first and second ferroelectric capacitors comprises:

forming ~~a second~~ an electrode material layer of the first and second ferroelectric capacitor ~~capacitors~~ on an entire surface including the first and second ferroelectric layers; and

selectively removing the ~~second~~ electrode material layer, wherein the second electrode of the first ferroelectric capacitor and the second electrode of the second ferroelectric capacitor are respectively formed on the field regions at both sides of the active region.

19. (Cancelled)



20. (Currently Amended) The method of claim 18, further comprising forming third plugs coupled to the first plugs respectively, before forming the first and second bitlines, wherein the first bitline is coupled ~~the third plug coupled~~ to the first drain region through the third plug and the first plug, and wherein the second bitline is coupled ~~with the third plug coupled~~ to the second drain region through the third plug and the first plug.

21. (Cancelled)

22. (Withdrawn) The method of claim 15, wherein forming the second electrodes of the first and second ferroelectric capacitors comprises:

forming a second electrode material layer of the ferroelectric capacitors on the entire surface including the first and second ferroelectric layers; and

selectively removing the second electrode material layer to form the second electrode of the first ferroelectric capacitor and the second electrode of the second ferroelectric capacitor, wherein the second electrodes are symmetrically formed in parallel to each other along the first and second split wordlines.

23. (Withdrawn) The method of claim 22, wherein the second electrode of the first ferroelectric capacitor is formed from a region between source and drain regions of the second active region to the field region below the first active region, and wherein the second electrode



5 of the second ferroelectric capacitor is formed from a region between source and drain regions of the first active region to the field region on the second active region.

24. (Withdrawn) The method of claim 15, further comprising forming a barrier metal layer after forming the first and second plugs.

25. (Withdrawn) The method of claim 15, wherein the second electrodes of the first and second ferroelectric capacitors are island shaped, and wherein the first and second active regions are asymmetrically positioned.

26. (Currently Amended) The method of claim 15, wherein forming the conductive layers includes forming a first conductive layer and a second conductive layer, wherein the first conductive layer directly connects the second electrode of the first ferroelectric capacitor with the second plug coupled to the first source region of the first active region, and wherein the second conductive layer directly ~~couples~~ connects the second electrode of the second ferroelectric capacitor with the second plug coupled to the first source region of the second active region.

27. (Cancelled)



28. (Currently Amended) A method for fabricating a device, the method comprising:

forming first and second split wordlines on a substrate extending along a first direction separated by a prescribed interval;

forming first and second impurity regions respectively along apposite sides of each of the first and second split wordlines;

forming an insulating layer covering the first and second impurity regions and the first and second split wordlines;

respectively forming first and second capacitors over the second and first split wordlines, wherein the first and second capacitors each include a first electrode formed on the insulating layer and a second electrode formed over the first electrode;

respectively forming ~~first and second~~ conductive layers that respectively couple the first impurity regions to corresponding ~~upper~~ second electrodes of the first and second capacitors; and

forming first and second bitlines across the first and second split wordlines, wherein the first and second bitlines are respectively coupled to the second impurity regions.

29. (Currently Amended) The method of claim 28, wherein the first and second capacitors are ferroelectric capacitors.



30. (Currently Amended) The method of claim 29, wherein the forming the first and second ferroelectric capacitors comprises:

forming ~~a~~ the first electrode of the first ferroelectric capacitor over the second split wordline and forming the first electrode of the second ferroelectric capacitor over the first split wordline;

forming ~~first and second~~ ferroelectric layers respectively over surfaces of the first electrodes of the first and second ferroelectric capacitors; and

forming the second electrodes of the first and second ferroelectric capacitors respectively over surfaces of the ~~first and second~~ ferroelectric layers.

31. (Currently Amended) The method of claim 30, further comprising:

forming field region and defining active regions surrounded with the field region before forming the first and second split wordlines; and

wherein forming the second electrodes of the first and second ferroelectric capacitors comprises:

forming ~~a second~~ an electrode material layer ~~of the ferroelectric capacitor~~ on an entire surface including the ~~first and second~~ ferroelectric layers; and

forming the second electrodes of the first and second ferroelectric capacitors by selectively removing the ~~second~~ electrode material layer, wherein the second electrode of the first



ferroelectric capacitor and the second electrode of the second ferroelectric capacitor are respectively formed ~~on~~ over the field regions ~~at both sides of corresponding active regions~~.

32. (Withdrawn) The method of claim 30, wherein forming the second electrodes of the first and second ferroelectric capacitors comprises:

forming a second electrode material layer of the ferroelectric capacitors on an entire surface including the ~~first and second~~ ferroelectric layers; and

selectively removing the second electrode material layer to form the second electrode of the first ferroelectric capacitor and the second electrode of the second ferroelectric capacitor, wherein the second electrodes are symmetrically formed in parallel to each other along the first and second split wordlines.

33. (Withdrawn) The method of claim 32, wherein the second electrode of the first ferroelectric capacitor is formed from a region between source and drain regions of a second active region to a field region below a first active region, and wherein the second electrode of the second ferroelectric capacitor is formed from a region between source and drain regions of the first active region to a field region on the second active region.

34. (Currently Amended) The method of claim ~~[[28]]~~ 29, wherein the first and second impurity regions are respectively source regions and drain regions, and wherein forming the first



~~and second~~ conductive layers comprises forming ~~second~~ plugs coupled to the ~~first and second~~ source regions ~~through second contact holes~~.

35. (Cancelled)

36. (Cancelled)

37. (Previously Presented) The method of claim 28, wherein the first electrode of the first capacitor is formed over the second split wordline and an insulating layer is formed therebetween, and wherein the first electrode of the second capacitor is formed over the first split wordline and an insulating layer is formed therebetween.

38. (Cancelled)

39. (Cancelled)

40. (Withdrawn) A method for fabricating a device, the method comprising:  
defining a first active region and a second active region on a semiconductor substrate;



forming first split wordline across the first active region and a second split wordline across the second active region;

forming first and second source and drain regions in the first and second active regions, respectively, wherein the source and drain regions are at opposite sides of the first and second split wordlines;

forming first plugs coupled to the first and second drain regions through a contact hole;

forming second plugs coupled to the first and second source regions through the contact hole;

respectively forming first electrodes of first and second capacitors over the second and first split wordlines;

forming insulating material layers on the first electrodes;

respectively forming island shaped second electrodes of the first and second capacitors on surfaces of the first and second insulating material layers;

respectively forming first and second conductive layers that couple the second plugs with the second electrodes of the first and second capacitors; and

forming first and second bitlines across the first and second split wordlines, wherein the first and second bitlines are coupled to the first and second drain regions through the first plugs.



Serial No. 09/739,753  
Reply to Office Action of September 11, 2003

Docket No. HME/K-10Q

41. (Cancelled)